Technical Bulletin 14

Spring 2001

Voice: 603-271-2155
Fax: 603-271-1728
Web: http://www.state.nh.us/osp

This "stealth tree" facility is located in Dublin, NH, and is quite difficult to identify from afar.

Planning for Wireless Telecommunications

Introduction

This *Technical Bulletin* is intended to help communities understand the emerging issues associated with wireless telecommunications. The first section of this bulletin explains how this technology operates and describes the process of deploying these wireless networks. For communities that wish to regulate the development of wireless facilities, the second section suggests some issues to consider and provides a checklist for a wireless telecommunications ordinance.

The Office of State Planning (OSP) was directed to prepare this document by NH RSA 12-K, *Deployment of Personal Wireless Service Facilities*. This technical bulletin is part of a series of technical bulletins produced by OSP on emerging planning issues. Additional sources of information on the topic of wireless telecommunications can be found in the final section of this bulletin.

Background

Wireless technology is here! Across the country demand for wireless service from consumers and business interests continues to increase. Wireless transmission sites are being deployed to meet this demand. Wireless service providers have installed more than 80,000 transmission sites nationwide. Another 100,000-200,000 installations, including thousands on towers, are planned over the next few years to meet the projected demand for wireless phone subscribers in the U.S. alone.

The Cellular Telecommunications Industry Association (CTIA) estimates that more than 3,000 new customers subscribe for wireless service each day. According to the Federal Communications Commission (FCC) analysts estimate that there are close to 100 million wireless telephone subscribers today. Telecommunications should be viewed as necessary infrastructure. The technology and the companies providing it are protected to some degree under the federal Telecommunications Act of 1996.

The two principal participants involved in the siting of PWSFs are local governments and wireless industry representatives and the two are frequently at odds. One of the reasons for this is that each feels that their role serves the greater public good and that the other group threatens to undermine their work. Local governments must make sure that they have a regulatory process in place that will adequately handle the complexities associated with the siting of PWSFs. This often makes the difference between an inappropriate facility and negotiating a design that has minimum impact and maximum benefit for the community.

The Technology

A basic knowledge of how wireless technology works and its physical limitations makes it easier to understand the technical issues related to the siting of wireless facilities. As we move from wooden pole and land line infrastructure to towers and alternative facilities we must realize the visual impact of PWSFs.

> ***According to the American Planning Association, Personal Wireless Service Facility (PWSF) is an umbrella term encompassing a broad range of wireless communication technologies that transmit information almost instantaneously, primarily including cellular phones (which use analog technology) and the newer personal communication services (PCS, which use digital technology).***

When a call is made on your wireless phone, the message is transmitted by low-energy signals to the nearest antenna site connecting to the local phone network. Your call is then delivered by the phone lines to the location you dialed, or by signals to another wireless phone. Wireless technology uses individual frequencies over and over again by dividing a service area into separate geographic zones called cells. Cells are equipped with their own transmitter/receiver antenna. When the customer using a wireless device approaches the boundary of a cell, the wireless technology senses that the signal is becoming weak and automatically hands off the signal to the antenna in the next cell into which the user is traveling. When subscribers travel beyond their coverage area, they can still place wireless calls. The wireless carrier in the area provides the service, referred to as roaming.

The original wireless networks carried analog signals only. Recently, many cellular systems have converted to digital technology. This digital service operates at the same frequencies as the analog and under the same license, but the signals are encoded differently. Digital cellular systems typically carry more calls simultaneously and allow for additional customer features like caller ID and voice-mail.

To make the telecommunications issue even more complicated, analog and digital cellular technology are not the only services being deployed. Personal Communications Services (PCS) and Enhanced Specialized Mobile Radio (ESMR) are now being deployed throughout New Hampshire and the rest of the country. ESMR service has traditionally been used for two-way fleet dispatch communications, but is now being used for digital wireless phone service. PCS (digital) communication is similar to cellular service, but it provides a higher quality reception and can be used to transmit data, as well as voice. PCS uses higher frequencies than cellular, which results in PCS signals traveling shorter distances. As a result, a standard PCS network will require more facilities than a standard cellular network. The licensing system for PCS providers is also different. PCS providers are given a blanket license for their entire geographic area, and are not required to individually license each transmitter site. By contrast, cellular providers must obtain a license for each facility. On the horizon we may also see fixed wireless and unlicenced services playing a role in the deployment of wireless service.

Service Providers and Vertical Real Estate Companies

Wireless service providers are currently deploying wireless services in New Hampshire. At least seven providers are constructing their networks across the state, but not all of these providers are licensed in all counties. Vertical real estate companies have also become part of this deployment. These are companies that construct ground and structure mounts and rent space on these facilities to wireless service providers. Vertical real estate companies differ from service providers in that they do not carry an FCC license. They can, however, contract with a licensed service provider and construct a facility for the service provider's use. We recommend that they be treated as service providers under the Telecommunications Act of 1996.

Emerging Services

Technological advances are occurring rapidly in the wireless field and are then being handed down to the consumer. Phones are only one segment of the devices, which will include handheld and small desktop units, providing access to voice, data, and video services. As a result, in the near future, communities will also be experiencing the deployment of other wireless services, such as: wireless internet and email, two way paging, wireless cable, and wireless data service.

These emerging services will also require facilities. In the age of the internet, more and more wireless facilities are being deployed to offer 'fixed wireless access' data and internet services. As the need for capacity increases, these companies will need to reuse the frequencies and smaller "cells" [i.e. more facilities] will be deployed. Wireless digital internet will require facilities within 1 to 2 miles of each other, but not all of these will be conventional tower mounted facilities. This should, however, be an indication of how numerous future facilities will be and why it is important to have a plan to minimize their impact. Growing numbers of subscribers are also causing capacity issues. With more subscribers using the wireless infrastructure, the system becomes strained and additional infrastructure becomes necessary to expand capacity or improve service quality. This translates as a need for carriers to continue building their networks to meet coverage and capacity requirements. The result is an expanded network with a greater number and density of PWSFs.

The Transition to Satellites

Both terrestrial and satellite services are finding their niche in the U.S. wireless marketplace and new technologies are being offered every day to consumers. Consumers are not necessarily switching from terrestrial to satellite services, however, as satellites generally complement terrestrial services rather than compete with them.

Satellite-based services may come down in price and increase in availability over time, but according to the FCC, there doesn't seem to be a trend toward satellites replacing towers, especially in urban areas where there are other communications media available. In areas unserved or under served by terrestrial means [i.e. where it would be very expensive to run cable or put up facilities to serve a small population] satellites have much to offer. In reality, satellites are expected to complement, not replace, terrestrial services, with each company offering services that appeal to different users.

Deploying the Technology

The Industry

The role of the wireless industry in the deployment of this technology is simple. They want rapid system development and tall facilities, which are capable of providing reliable service, in the coverage phase of establishing their networks. The coverage phase is the first phase of deployment and most carriers prefer to build taller facilities at this time because the objective is to achieve the most coverage from the fewest sites. These facilities are generally located within five miles of each other to provide the necessary coverage.

During the second stage of development the provider is trying to meet an increase in demand for service. At this point in the deployment, capacity sites will be created between the coverage sites. Since these two types of facilities will now share service areas, the provider must reduce the heights of all mounts so that the antennas are at a similar (lower) elevation, or adjust the power and direction of the coverage sites to serve a smaller area.

Different regions of New Hampshire are experiencing different stages of deployment. Some rural areas have not experienced the coverage stage yet, while some of the more urban areas are already into the second stage of deployment.

The FCC and the Federal Telecommunications Act of 1996

The role of the FCC is related to the auctioning of wireless spectrum and regulating the wireless industry. The Telecommunications Act required the FCC to prepare new regulations for radiofrequency radiation (RFR) emissions from personal wireless service facilities and provide guidelines for the deployment of this wireless technology.

Section 704 of the Telecommunications Act of 1996, which is entitled the "Preservation of local Zoning Authority," governs federal, state and local government oversight of wireless facility siting. Section 704 preserves local zoning authority over the placement, construction and modification of PWSFs with some limitations. This section states that local government:

- Shall not unreasonably discriminate among providers of functionally equivalent services;
- Shall not prohibit or have the effect of prohibiting the provision of personal wireless services;
- Shall act on any request for authorization to place, construct, or modif y PWSFs within a reasonable period of time after the request is filed, taking into account the nature and scope of the request;
- Shall put any decision to deny a request for a PWSF into writing and support such decision by substantial evidence contained in a written record; and
- Shall not regulate PWSFs on the basis of the environmental effects of radio frequency emission to the extent that such facilities comply with the FCC regulations concerning such emissions.

The Local Level

The role of local government is to be proactive and remain within the guidelines of the Telecommunications Act. A PWSF ordinance and a plan are crucial components of a proactive approach to the telecommunications issue. The key is having a process that is flexible enough to allow the local boards to negotiate acceptable solutions. Considering the evolving nature of the telecommunications industry, communities are best served by an ongoing planning process led by a local or regional telecommunications committee.

The Master Plan should include a telecommunications section and the community could even identify locations where facilities should or should not be located, with the help of an engineer or an industry representative. There are many ways to engineer facilities and networks in a given area. A community may determine that two small facilities outside of a sensitive area would be more desirable than one very tall tower in the center of the area.

With these items in place, a community can clearly identify the type of facilities desired and the locations that would be most appropriate for future facilities. This can lead to a "path of least resistance" approach to approval. If an applicant submits a proposal that satisfies all of the criteria identified in an ordinance, the approval process could be handled quickly. The opposite would be true for an applicant who submits a proposal that does not satisfy the criteria. This may encourage applicants to design their proposed projects according to the community's identified guidelines.

Municipal officials do not need engineering degrees, but they should be aware of the effects that height, power levels and screening have on RF signals and the ability of a facility to perform as part of the network. One size does not fit all! When looking to use other ordinances as models, communities should be sure that they have similar priorities, constraints and desired outcomes. With appropriate regulations, knowledge of the industry and a clear community vision, local boards can have a great deal of influence over proposed wireless facilities.

Communities Without Zoning

In the view of OSP, a zoning ordinance is the only useful vehicle for regulating the placement, design and construction of PWSFs. Some communities have tried to use the "police power" authority, but in our view, this limits the elements that may be controlled to those related to health and public safety: clear fall zones, preventing ice build up and blow off and related items. Zoning appears to be the only regulatory vehicle that deals with a community's full range of issues.

For communities without zoning, a recommended first step is to use this as the occasion to seriously consider adopting a zoning ordinance. Remember that this step requires a master plan on which to base the zoning ordinance. Some communities have asked if they could adopt a single purpose zoning ordinance that only deals with PWSFs. First, consult with your municipal attorney. Second, our advice is that it probably is legal to adopt a zoning ordinance, under RSA 674:16 or RSA 674:21, that deals exclusively with PWSFs, but it needs to be tied to a master plan and needs to follow the normal adoption procedures. New legislation was introduced in the 2001 Legislative session in hopes of clarifying this approach.

NH State Law RSA 12-K

RSA 12-K, Chapter 240, Laws of 2000 - *An act relative to a state master plan for the deployment of personal wireless service facilities (PWSFs)* - became effective on August 7, 2000. The purpose of the law is to provide for the deployment of necessary PWSFs under the federal Telecommunications Act of 1996, while minimizing the visual effects of tall facilities. Varying in height from 35 to over 250 feet, wireless facilities have a powerful impact on the visual character of a community.

RSA 12-K states that carriers wishing to build PWSFs in New Hampshire should consider commercially available alternatives to tall cellular towers which may include the use of the following:

(a) lower antenna mounts which do not protrude as far above the surrounding tree canopies;

(b) disguised PWSFs such as flagpoles, artificial tree poles, light poles and traffic lights which blend in with their surroundings;

(c) camouflaged PWSFs mounted on existing structures and buildings;

(d) custom designed PWSFs to minimize the visual impact of a PWSF on its surroundings; and

(e) other available technology.

It is important to note that these types of alternatives exist and are in operation in many New Hampshire communities.

PWSF applicants must provide local land use boards with a copy of their federal license from the FCC proving that they, or their contracted client, are eligible to deploy their systems under the federal Telecommunications Act of 1996. Part of this new law requires regional notification of a proposed PWSF to every municipality within a twenty mile radius and the opportunity to comment at a public hearing. The applicant should be responsible for providing the list of municipal boards within the twenty mile radius of the proposed facility and the regional notification process should occur at the applicant's expense.

The OSP has created a map of all PWSFs in the state which includes all externally visible tower facilities, both active and inactive, for all carriers. The map also includes site descriptions for each of these facilities. This map will be updated regularly and will be available from the OSP website.

This technical bulletin has also been prepared in accordance with the new law, and is available on the OSP website. OSP will continue to provide assistance in the form of relevant ordinances, telecommunications information and educational opportunities on the topic of telecommunications.

Two facilities in Bedford, NH,that are of different heights and design.

Issues

Here are some key issues for communities to consider if they choose to regulate the development of wireless facilities. The next section of this document will then elaborate on a checklist for preparing an actual telecommunications ordinance.

Height: Facilities can operate at any height the town and the carrier find agreeable. Although height is one determinant of coverage, lower mounts can achieve almost the same coverage as higher mounts in many cases. The choice to be

made is: accept more lower facilities right away, or start with just a few higher ones. Either way, the ultimate pattern will most likely be many lower facilities. Therefore, it may be in a community's best interest to encourage a greater number of short facilities in the early stages of development.

Safety: Communities may establish safety requirements to protect persons and property. This issue is generally dealt with by establishing "fall zones." Fall zones are based on the possibility that a structure may fail, or that ice or other objects may be blown or fall from the structure. A fall zone is an area surrounding the structure within which no other structure, property or use can be located. Remember, the Federal Aviation Administration (FAA) does require airspace safety lighting or markings on towers 200 feet or greater in height.

Interference: There are several types of interference which can be subject to testing, and most can be engineered down to acceptable levels. Interference is typically caused when one frequency interacts with another, or when signals in the same frequency (such as PWSFs) interfere with each other. This determination can best be made by a radiofrequency (RF) engineer. Local governments can retain a third party expert to test for interference or evaluate the specifications for the facility at the applicant's expense, or they can rely on the carrier's compliance with FCC regulations.

Noise: Of all the issues listed in this document, noise from a PWSF is the most difficult to anticipate and measure. As with any facility, noise can result from moving parts or nature impacting the facility. Noise caused by air conditioning units in equipment shelters and back-up generators may be a consideration. In areas of high wind the noise of wind blowing through a structure may be a factor and ambient noise readings should be taken. If potential noise could be a problem, then an acoustical report should be required. In many cases this is dependant on the proximity of schools, residences, hospitals, parks and open space. It should also be noted that equipment shelters can be located in underground vaults to address certain noise.

Visibility: Visibility impacts can occur in individual situations or over a general area (scenic viewsheds). Communities can establish overlay districts for the preservation of scenic viewsheds and other environmentally sensitive areas. In some cases placement can determine how visible a PWSF will be. It should be noted that handsets can receive signals from antennas even if they are not immediately visible.

Camouflage: The wireless industry uses the term "camouflage" to describe the different methods of disguise. One technique is to place the PWSF in a forested area. The industry often resists this approach claiming that while the signal will work it will not be as strong as without tree cover. The ideal "line of sight" communication path virtually never exists and the wireless network is designed with that fact in mind. Fiberglass can also be used to camouflage a facility because it does not affect the signal. False walls and other building elements fabricated from fiberglass can therefore be used to hide facilities. Fiberglass can be used in a stealth application to disguise a facility as a large tree, or another appropriate object. Landscaped buffers can also be utilized to camouflage PWSFs. These buffers should be designed to provide adequate screening at the time of planting and throughout the year.

This Hudson church also serves as a telecommunications facility with antennas located in the steeple.

Design: Wireless facility design is closely linked with camouflaging techniques. New mount and antenna designs allow the antennas to be placed directly against the mount and can reduce the degree to which a PWSF is visible. Therefore, appropriate design of a PWSF, including the mount and associated antennas, as well as siting, can render a PWSF almost invisible.

This "brown stick" is a flush-mounted monopole along Rt. 101 in Raymond, NH.

Equipment Shelters: Every PWSF requires some kind of equipment shelter. The design of equipment shelters and associated structures should be carefully reviewed by local boards because of their potential visual impacts and environmental issues. Electrical and telephone lines will also be required to connect the facility to the local network. Depending on the technology being used, equipment shelters often house batteries and/or fuel powered generators. In environmentally sensitive areas propane or natural gas powered generators should be used instead of oil generators, and batteries and any other hazardous materials should be housed within a containment area. Equipment shelters can be located in underground vaults if the visual impacts are of concern. If the structures are located above ground, they should be treated with appropriate architectural design elements and colors and possibly screened with a landscaped buffer.

This "flag pole" is also a flush mounted monopole which is located in Hudson, NH

NEPA: Under the National Environmental Policy Act (NEPA) the FCC requires applicants to prepare "environmental assessments" for facilities that are proposed to be located in certain environmentally sensitive areas, including: officially designated wildlife preserves or wilderness areas; 100-year floodplains; situations which may affect threatened or endangered species or critical habitats; or situations which may cause significant change in surface features, such as wetland fills, deforestation or water diversion. The fact that an environmental assessment is required does not necessarily mean the tower cannot be built. It does, however, call for public notice and opportunity to comment on the environmental impacts of the proposed facility. An FCC finding of "no significant impact" means the project has cleared NEPA scrutiny.

Section 106 Review: Although it is frequently folded into the NEPA process, Section 106 of the National Historic Preservation Act is an independent, stand-alone federal requirement. It has no injunctive power, but it can be a strong incentive for finding win/win resolutions as quickly as possible. The historic preservation review process is intended to be a problem solving approach for avoiding or mitigating harm to historic properties from government actions. For information about Section 106 criteria and procedures relating to wireless projects in New Hampshire, contact the Division of Historical Resources at 603-271-3483.

Radiofrequency Radiation (RFR) Emissions: This is one of the most controversial and misunderstood aspects of a PWSF. Communities may not regulate RFR emissions unless they have exceeded the federal standards as set by the FCC. Frequent discussion of this issue during the consid-

eration of a proposal will also cause legal headaches if the application is eventually denied. Communities can require that an applicant demonstrate that a proposed PWSF meets the FCC Guidelines.

Moratoria: According to the FCC "local governments and the wireless industry should work cooperatively to facilitate the siting of wireless telecommunications facilities. Moratoria, where necessary, may be utilized when a local government needs time to review and possibly amend its land use regulations to adequately address issues relating to the siting of wireless telecommunications facilities in a manner that addresses local concerns, provides the public with access to wireless service for its safety, convenience and productivity, and complies with the Telecommunications Act of 1996. Moratoria should be for a fixed (as opposed to open ended) period of time, with a specified termination date. The length of the moratorium should be that which is reasonably necessary for the local government to adequately address the situation. In many cases, the issues that need to be addressed during a moratorium can be resolved within 180 days."

New Hampshire communities must enact a moratorium by a vote of their legislative body.

Conclusion

Next Steps

Don't think you can stop here - the learning curve is really just beginning! This bulletin provides you with some basic technical information on PWSF's and how they are being deployed in New Hampshire. You should now have a general perspective about height limits, tower design, signal coverage and visibility. But, the hard work is just beginning for communities. How do you get started? Well, here are some pointers for planning boards.

- Talk about it! From the very first, there should be conversations on how and why you want to pursue a certain approach to PWSF. Some questions to think about are: do you want tall towers? what about lots of smaller ones? where is a good location?
- Broaden your perspectives! Don't just talk amongst yourselves. Notice the general public, of course, but also invite resource people in your community and some industry folks as well. The most important thing is to engage in as broad a discussion as possible to build up a solid base of understanding when you are tackling the drafting and amending of regulations or ordinances.
- Organize a subcommittee! This is not a general rule; each community must determine for itself whether or not they need such a formal organization. However, subcommittees can work effectively when assigned specific tasks as part of the process of developing regulations.
- Don't neglect your master plan! A regulation is only as good as its foundation, the master plan. Make sure your regulations are based on sound planning.
- Use the NHMA checklist! Copy the next section of this bulletin and keep it with you as a guide when you begin to draft or amend your regulations.
- Finally, you are not alone! There are many opportunities for assistance from your regional planning commission and OSP. Please contact us if you have questions!

Checklist for a Wireless Telecommunications Ordinance

Prepared by the New Hampshire Municipal Association

☑ You begin with a **purpose** (generally good advice!). This is the section where you articulate your goals. The statement of purpose for your zoning ordinance in general probably encompasses the purposes of a telecommunications ordinance per se. Still, it is advisable to specify your purposes in the initial section. This purpose will recite the specific values that you want to foster in your community and the kinds of goals that have come out of the task force investigations. For example, if your town is a population of dedicated bird watchers, and you have reports that show the town on a migration path for certain endangered species, and the town wants specifically to protect its site on the wildlife corridor for safe passage of birds and observation of migration, then you should state that as one of your purposes.

☑ The next section will probably include **definitions of certain terms**. Be careful here, because many terms have already been defined either in the Telecommunications Act (TCA) or, at the state level, in the new RSA Chapter 12-K. There is no need for you to repeat these definitions and no need to define words or terms (a) that are not used in the ordinance, or (b) are not capable of being misconstrued by a PWSF applicant who has never been to your town before filing an initial application. (Another word of caution: even though definitions often appear in the introductory part of the ordinance, they are usually contemplated first and written last, like any good introductory paragraph.)

☑ When you design your **substantive regulations**, keep in mind a straightforward formula: the areas you have decided are the most desirable placements for siting PWSFs should be the easiest for an applicant to obtain approval. These uses may even be able to be granted without special review. Conversely, the placements and types of PWSFs which are the least desirable according to your ordinance's purposes should be the ones that are the hardest to obtain. (Note: the hardest to obtain is not the same as impossible; impossibility could be interpreted as violating competitively neutral guidelines of the TCA.) Make permission for siting in those areas most in need of shelter from PWSF impact (visually/esthetically, or because of secondary effects) very difficult to obtain (such as variances) for tall towers, e.g. (even if wall-mounted smaller units would be acceptable.)

☑ Once you decide where facilities may be located, it is a good idea to **review all your zoning provisions** to be sure that PWSFs (or certain types) are permissible accessory uses for a piece of property (See RSA 674:16 V). Some zoning ordinances are worded to prohibit more than one "primary" use of a property. If you do not fix that wording, you will be regulating at contrary purposes, because you may very much WANT to allow a local church to site a PWSF on its steeple.

☑ What kinds of uses will have to obtain a variance in order to gain approval? This is an area where you must be especially careful in your drafting (see above comments on impossibility).

☑ You may want to include architectural considerations in your regulations governing any maintenance structure or accessory equipment housing that accompanies the principal PWSF structure.

☑ Consider what kinds of safety standards you need to include. For example, you may decide that PWSFs are functionally equivalent to the "attractive nuisance" characteristic of residential swimming pools that many communities require be fenced for protection of children and trespassers. If so, then your ordinance regulations need to make clear the type of fencing that will comply with your standards. Also consider the types of setbacks you will impose for any particular type of facility. One court has held that a local requirement of a setback sufficient to isolate a tall tower if it were to tip over was an appropriate method of ensuring public safety. Your setbacks, then, might be expressed in a certain distance, or perhaps as a ratio to the height of the proposed structure.

☑ Although you cannot regulate what sort of electromagnetic radiation emissions a PWSF will have, you can build into your regulations a schedule of regular inspections for compliance with FCC standards. You can also require a PWSF provider to agree, as a condition of approval, to

guarantee access to the site for inspections. These inspections may be arranged as deemed necessary to monitor compliance with zoning regulations, as well as all the FCC administrative regulations to which the PWSF is subject as a condition of holding its operating license.

☑ "Colocation" is industry buzz for the simple concept that different providers can share structures. This may be a good thing for zoning and for businesses alike. You may want to provide incentives for PWSFs to double up and make multiple use of any particular approved structure. That focus may cause you to consider offering an initial applicant/builder some kind of incentives to build a facility that will accommodate the next few companies seeking to establish service in your area. Notification arrangements have to be thought through, or you risk losing potential fees and the opportunity to review such applications. This is one way that towns can minimize the number of these types of facilities without violating the TCA.

☑ Your ordinance should also include provisions for removal of towers that become obsolete. This might entail some requirement that an applicant post a performance bond. No town wants to be left with structural dinosaurs. Though some people speculate that towers will disappear in a few years when technology moves "beyond" this stage, it seems more likely that these PWSFs will persist, but maybe in smaller or (we hope) unobtrusive formats. The growth of satellite transmission services has not lessened the great surge in the PWSF market at all.

Procedural Considerations

- Draw up a clear list of what your board will expect an applicant to do. This listing may be a difficult task at the outset, but will give all parties concerned a better way to review an application. Since the Telecommunications Act (and due process) require applications to be acted on within a "reasonable" time, you as a board can satisfy that responsibility better when you inform your applicant exactly what will be needed. For an outline of what you can require under state law, see the text of RSA 12-K.
- You have a right to require proof of the property owner's interest in filing the application, a deed/description of the property and explanations of any "team" approach of having one company provide the structure, and a different entity provide the wireless service.
- RSA 12-K also allows you to require maps of the surrounding areas and to make the applicant supply you with specifics on the facilities proposed, and why less intrusive ones were not proposed. This information is very helpful to a board in assessing the application, and also helps to counter the occasional disdainful attitude of applicants' representatives who would rather you not be aware of alternative solutions that might cost the company a bit more in dollars, time or technology.
- Do not be shy about requiring the applicant to supply you not only with a copy of the license permission from the FCC (also covered in RSA 12-K) but also reports showing compliance with FCC emission standards and engineering reports of the justification for the site proposed.
- Your list should also set forth the standard information provided to applicants about the notices required, fees, hearings schedules, etc. Under RSA 12-K:7, for example, regional notification of surrounding communities (and opportunity for comment) is required whenever a proposed installation could be viewed from those other areas.
- The other list you must make for applicants should set forth the procedure you will follow to waive the stringency of certain requirements under the right circumstances. If a requirement serves no particular purpose in the circumstances of a particular application, you should have the ability to modify your requirements. Be careful when you do this to avoid the appearance of favoring one provider over another, as the TCA places high priority on guarding a competitively neutral environment for these PWSFs.
- Hearings must include neighboring communities. Be sure to comply also with all notice and hearing requirements under RSA Chapter 676. Do not forget that any meeting where public

business (such as a PWSF application) is discussed by public officials is subject the Right-to-Know Law, RSA Chapter 91-A.

- Any denial made by the town (either planning board or selectmen) must be made in writing. It must further base the decision on evidence produced in a written record before the planning board or other body. Implications of this requirement are simple, and you have heard it before: document, document! Create a paper trail on which the board's later/eventual decision may be reasonably based.
- Always make it a practice to notify applicants of their appeal options in the case of an adverse decision. A town should be scrupulously certain to adhere to procedural due process and never be in a position to be accused of playing any kind of bureaucratic shell game.

Sources of Additional Information:

Aesthetics, Community Character, and the Law, by Christopher J. Duerkson and R. Matthew Goebel, cosponsored by Scenic America and the American Planning Association, American Planning Association, 1998.

Locating Telecommunications Towers in Historic Buildings, by Nancy E. Boone, Ann Cousins, Holly Ernst Groschner, Thomas F. Keefe, Sheldon Moss, and Anne Stillman, National Trust, 2000.

Planning for Telecommunication Facilities in New Hampshire and Vermont, Connecticut River Watershed Council, 2000.

Siting Criteria for Personal Wireless Service Facilities, Kreines and Kreines, Inc. incooperation with the Cape Cod Commission, Cape Cod Commission, 1997.

Working with Wireless: Communities, Carriers, and Conservationists Collaborate to Find Workable Solutions For Siting Wireless Facilities, The Massachusetts Municipal-Industry Collaborative, 2000.

Agencies and Organizations:

Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Suite 809
Washington, DC 20004
202-606-8503

Appalachian Trail Conference
P.O. Box 807
Harpers Ferry, WV 25425-0807
304-535-6331
www.atconf.org

Cellular Telecommunications Industry Association (CTIA)
1250 Connecticut Avenue, NW Suite 800
Washington, DC 20036
202-785-0081
www.wow-com.com

Federal Communication Commission (FCC)
445 12th St. SW
Washington, DC 20554
202- 418-0190

Personal Communications Industry Association (PCIA)
500 Montgomery Street, Suite 700
Alexandria, VA 22314
703-739-0300

Scenic America
801 Pennsylvania Ave.,SE
Suite 300
Washington DC 20003
(202) 543-6200
www.scenic.org